STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

COMMONWEALTH EDISON COMPANY	**)**	
	)	**Docket 10-0467**
Proposed General Increase in Electric Rates	**)**	

DIRECT TESTIMONY OF EDWARD C. BODMER ON BEHALF OFTHE CITY OF CHICAGO

CITY EXHIBIT 1.0

NOVEMBER 19, 2010

QUALIFICATIONS AND SUMMARY OF TESTIMONY

Q. What is your name and on whose behalf are you testifying?

A. My name is Edward C. Bodmer. I am testifying on behalf of the City of Chicago ("City").

Q. Have you previously testified before the Illinois Commerce Commission (the "Commission")?

A. Yes, on many occasions. While the majority of my work is no longer associated with providing testimony in utility proceedings, I have been involved on almost a continual basis in a variety of rate matters associated with Commonwealth Edison Company ("ComEd" or the "Company") since beginning my career as a member of the Commission Staff more than thirty years ago. I have testified before this Commission on behalf of Staff, as a consultant for the City of Chicago and other consumer representatives, and once – many years ago – in support of ComEd.

Q. What are the principal subjects that you are addressing in this case?

A. My testimony focuses primarily on three issues.

1. ComEd's proposal to almost treble its already high customer charge for people who live in single family homes and to double its customer charge for people who live in apartments.

2. Implementation of the Commission's Order in Docket 08-0532 (the "Rate Design Order") with respect to secondary street lighting costs.

3. Details of ComEd's implementation for allocating uncollectible costs as directed in the Commission's Rate Design Order.

Q. Are there other issues that you address?

A. Yes. Many important rate design and cost of service issues have not received sufficient attention over the past many years in part because of the way ComEd presents its cost study and because of difficulty in obtaining useful data. I discuss these issues at the end of my testimony (after I address my three main topics).

COMED'S CUSTOMER CHARGE PROPOSAL

Introduction

Q. Please summarize ComEd's customer charge proposal in this case.

A. ComEd's current fixed monthly charges – charges that are imposed on a fixed basis and not affected by usage -- are currently $11.36 for ratepayers who live in

single family homes, which is one of the highest levels in the nation. For ratepayers who live in apartments or duplexes the total fixed monthly charge including all of these items is $10.43. ComEd's customer charge consists of the customer charge, the retail customer assessment, the standard metering charge, and the advanced metering program adjustment. ComEd proposes to increase the customer charge portion of the fixed charges for single family ratepayers from $7.64 to $26.78 per month. As to multi-family customers, ComEd argues that the customer charge portion of the fixed charges should be increased from $6.65 to $13.81. The table below shows that ComEd's proposals would increase the customer charge for single-family customers by 251% and by 108% for multi-family ratepayers.

	Single Family				Multi Family			
	Current	Proposed	Increase	Percent Increase	Current	Proposed	Increase	Percent Increase
Customer Charge	7.64	26.78	19.14	250.5%	6.65	13.81	7.16	107.7%
Metering Charge	2.24	3.20	0.96	42.9%	2.24	3.2	0.96	42.9%
Total	9.88	29.98	20.1	203.4%	8.89	17.01	8.12	91.3%

Q. Is ComEd's proposal to almost treble customer charges for single family ratepayers and to double customer charges for multi-family ratepayers an innovative break-through in rate design as implied in the Company's testimony?

A. No. The notion of increasing the inflexible portion of rates is a very old idea that has been advocated by unenlightened utility companies (my adjective) when

fairness considerations take a back seat. This old idea is attractive to utility companies because it can increase value to utility shareholders on two fronts. First, it allows utility companies to lower its cost of capital by reducing cash flow volatility that comes from variability in sales volumes. Second, by cutting incentives to conserve electricity, it promotes demand growth which in the case of ComEd leads to increased cash for it and for its parent company, Exelon (who owns the generating assets that are used to provide much of the electricity that ComEd delivers to its customers.[4]) In more academic language, utility companies attempt to place increased charges in the most inelastic portion of the rate structure by only including short-run marginal costs in the energy charge. The idea is to place differences between short-run marginal cost and the average cost on components of the rate structure that consumers cannot get out of paying by changing their consumption behavior.

As described in detail below, ComEd's proposal is tantamount to using short-run marginal costs in setting rates and then imposing the difference between marginal costs and average cost on the lowest use ratepayers. In the past, ComEd conducted more detailed cost studies and was more sensitive to fairness considerations in designing rates. In those days, ComEd applied marginal cost principles to determine distribution cost allocation, but the Company never went

[4] Exelon owns 11 nuclear generating units in Illinois. http://www.exeloncorp.com/community/locations/illinois.aspx . According to the U.S. Energy Information Agency ("EIA"), approximately 20.2% of the net generation in 2009 in the United States came from nuclear power. http://www.eia.doe.gov/cneaf/electricity/epm/table1_1.html. In comparison, nuclear power represented 48% of the net generation in Illinois in 2009.

to the extreme of imposing differences between marginal cost and the revenue requirement in such a discriminatory manner. ComEd's audacious proposal to increase customer charges may be advocated as innovative, but the idea, which is known as "Ramsey Pricing", is a very old one that was promoted by utility companies in the 1950's and 1960's when they were trying to grow to take advantage of economies of scale.

Q. You do not use ComEd's term "Straight Fixed Variable Charge" to describe the Company's proposal to increase its customer charges. Why not?

A. This phrase is nothing but dressed-up nonsense that may have been coined by some high-priced consultant. It is like the chief executive of a company repeating the phrase "shareholder value," a company giving an executive the title "Vice President of Customer Transformation," or bureaucrats using the term "innovering" to discuss innovations in engineering. In my opinion, these types of phrases are generally associated with ideas that have little, if any substance. I certainly think this is true with respect to the SFV proposal.

Q. Has the issue of ComEd's high customer charges been addressed by witnesses other than you and the Company in past ComEd rate cases?

A. When researching the annals of testimony presented in ComEd rate cases over the years, it is difficult to find anybody who cares very much about customer charges other than ComEd and me. But when digging back twenty years to docket 90-

0169 (when ComEd was still placing nuclear plants in service), one can find a witness who was quite forceful about how unfair the high customer charges imposed by ComEd were at the time. This witness presented pre-filed testimony in which he wrote the following:

- "[Commonwealth Edison's] customer charge should be substantially reduced"

- "[T]he Edison rate design … does not properly reflect the cost of serving different usage levels within the residential class and imposes an unfair and unjustified revenue burden on the low and moderate usage residential customers on the system."

- "To collect a higher rate from a 250 kWh user than from a 1,000 kWh user is to imply that the marginal cost of serving the lower levels of usage is higher. There is no evidence in this case demonstrating such a fact."

- "There is strong evidence that the marginal demand cost increases as usage levels increase."

- "Low and moderate use customers pay much higher average rates due to … an excessively high customer charge."

Q. Who submitted that testimony?

A. Dr. Ross Hemphill, who I believe is the same person who presented testimony on behalf of ComEd in this case. Dr. Hemphill may agree with Winston Churchill's comment that "eating words has never given me indigestion", but I think his thinking was clearer when he was younger. (Of course I am being a little sarcastic in that last statement and I hope my friend Ross and ComEd do not take it personally. ComEd and the City of Chicago have very different economic

interests with respect to increasing customer charges and I am just presenting the City's case.)

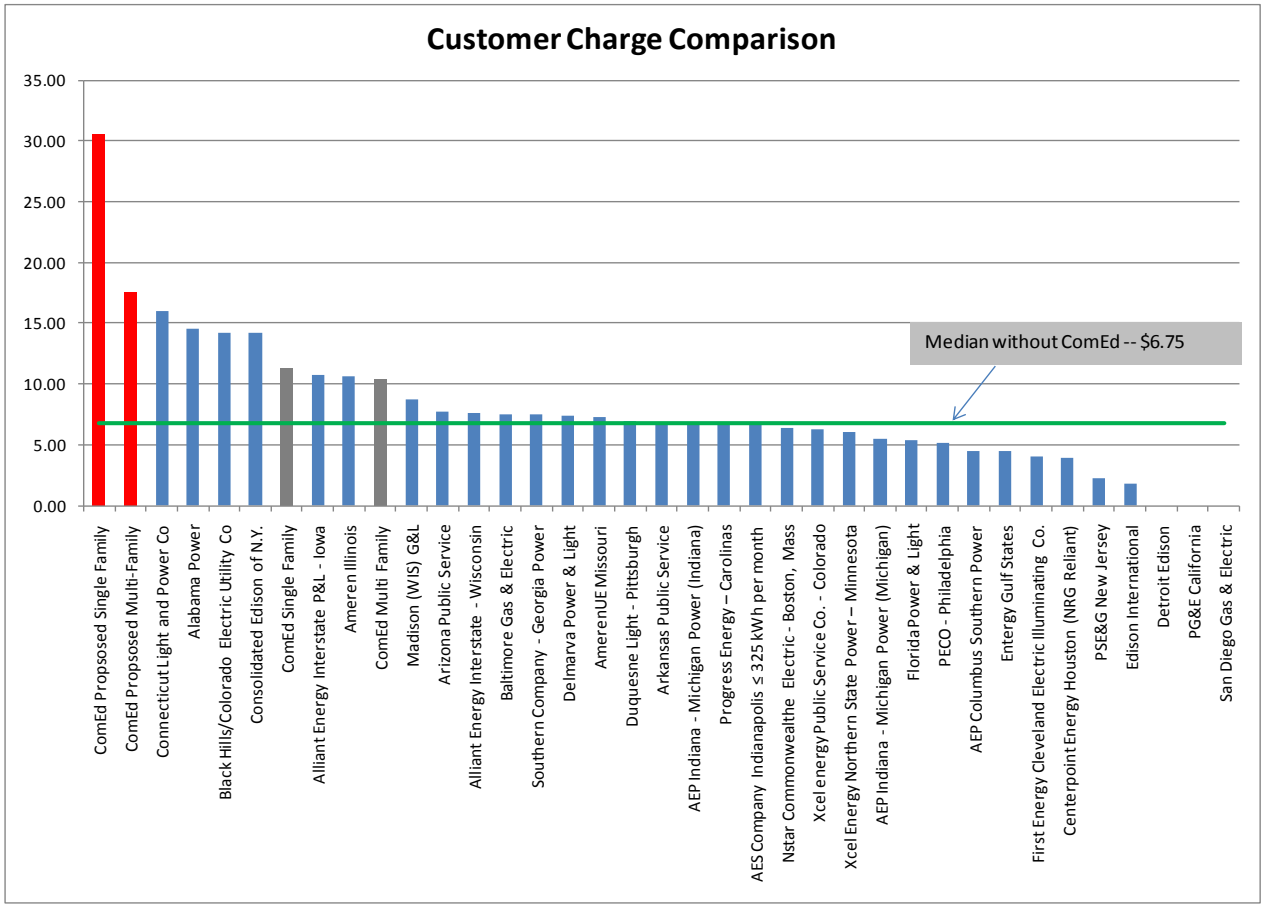
Effects of ComEd's Customer Charge Increase Proposal

Q. If ComEd's proposal were approved, what would be the level of its customer charges compared to the level of customer charges imposed on ratepayers for other utility companies?

A. The graph below uses an analysis of customer charges made by ComEd in the testimony of Mr. Alongi in Docket 08-0532, which was filed with the Commission on June 19, 2009. (At the time ComEd filed this testimony, I wondered why it made such an effort to compile customer charges when it did such little work on other residential rate design issues. It now seems that the Company and its consultants were busily working on a proposal to massively increase the customer charges and that they were gathering data to defend their impending residential rate design proposal.)

I have graphed the data presented by Mr. Alongi and inserted the proposed charges of ComEd into the chart. This analysis shows just how radical ComEd's proposal is. ComEd already has very high customer charges relative to other utilities its single family charge is 68% above the median and its multi-family charge is 55% above the median. The existing rank of ComEd is apparently not good enough. ComEd seems intent on being in first place in terms of highest

customer charge in the industry. If its proposal were to be accepted by the Commission, ComEd's single family charges would be 4.5 times the industry median and its multi-family charges would be 2.6 times the median of the other utility companies. Indeed, the single family charge would be about double the charge for the utility with the next-highest charge.



Q. ComEd's witness Alongi provides a table that contrasts the effect of its proposal on low-use and high-use ratepayers (tables D8 and D9 in his direct

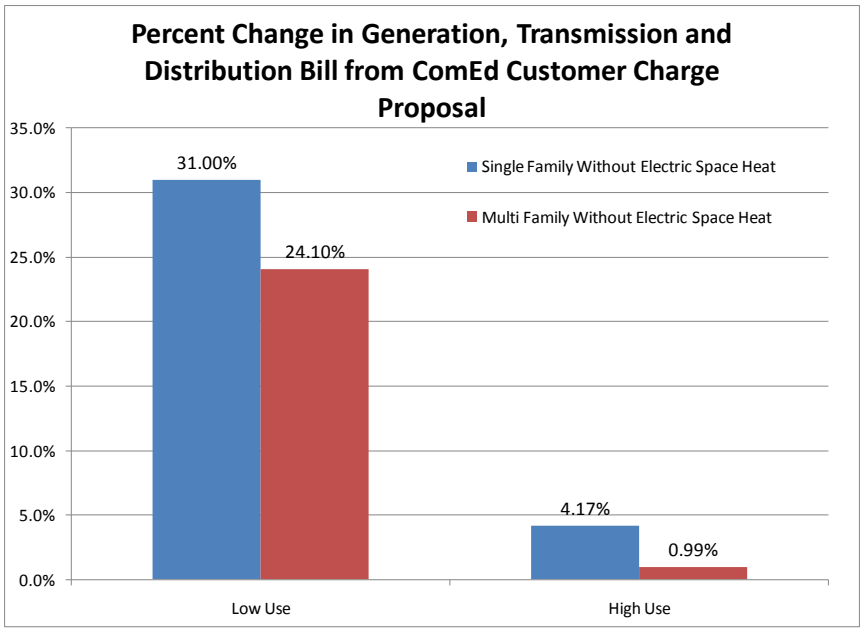
testimony (ComEd Ex. 16.0 (Rev.) at 26, LL 471-85)). Are these tables a good way to demonstrate the effect of the proposal?

A. No. I am pretty sure that ComEd does not own any generating plants and that this case involves only distribution rates. Yet the tables in Mr. Alongi's testimony show the rate impacts of ComEd's proposal to dramatically increase the customer charge on total bills. That is, the tables include the cost of generating electricity, which, according to the rule-of-thumb, represents approximately two-thirds of the total bill. In order to minimize the effect of ComEd's proposal, the Company combines distribution, transmission and generation rates in its table that presents percent changes to different groups of ratepayers. This makes the percentage changes appear lower or higher than an appropriate analysis of a stand-alone distribution charges. For example, if the increase in the customer charge for distribution is $10 per month and one divides that increase by the distribution bill – say $25 per month – then the increase will be 40%. However if the $10 is compared to a bill that includes distribution, transmission and generation – say $100 per month – then the percent increase is only 10%. Given that ComEd is a company that only constructs and maintains distribution and transmission lines and poles, comparing the changes in bills for distribution to generation and transmission is irrelevant. ComEd could just as easily compare the effect of its proposed distribution charge increases to all of the utility bills paid by a consumer including cable, telephone, gas, and water. Doing so would, of course, make the effect of any distribution rate change seem even more inconsequential, which

appears to be ComEd's objective in including generation costs in its bill impact tables in Mr. Alongi's testimony.

Q. Even though ComEd's tables are distorted, what do they show?

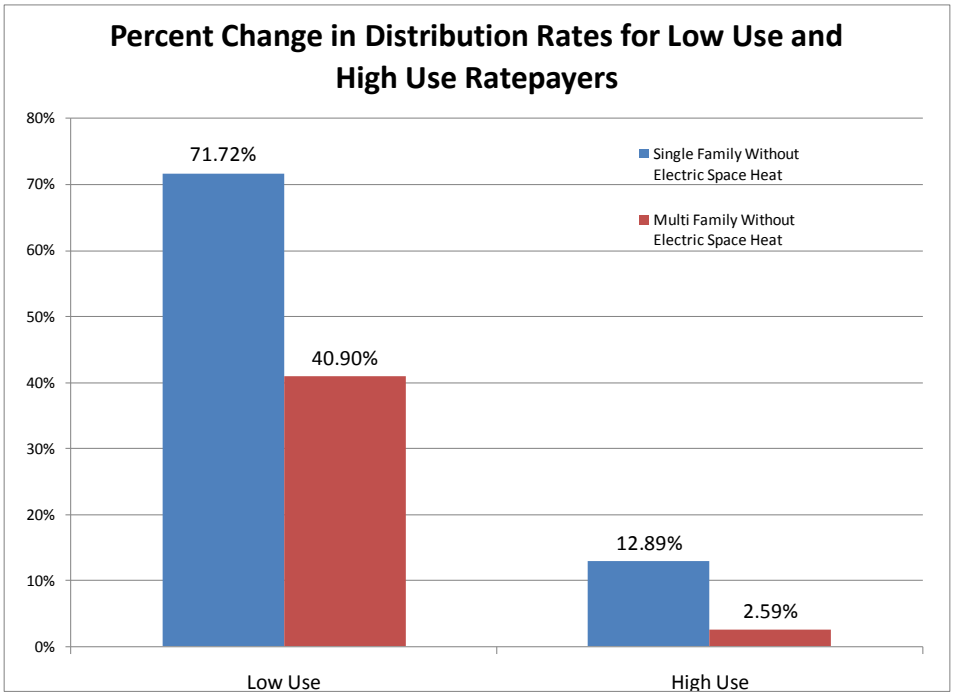
A. The graph below compares the numbers provided by Mr. Alongi in graphical form. With the distorted ComEd numbers, the discriminatory nature of the proposal with respect to low-use ratepayers is obvious.



Q. When ComEd's tables are corrected to so that they only include distribution rates, what do the tables demonstrate?

A. I have recreated the charts presented by ComEd, but excluded all of the supply charges and the transmission charges. When the comparison is made for distribution rates, then the percent increase is much more for the low use category

as shown on the graph below. The chart below is important because, as I will explain in the next section of my testimony, none of these dramatic shifts in rates are justified on the basis of cost of service.



Q. Should the Commission accept ComEd's proposal to increase its customer charge for single family residential consumers by 250% and to increase the multi-family customer charge by 107%, what would be the effect on City of Chicago and the suburban regions of ComEd's service territory?

A. If every ratepayer in ComEd's service territory used about the same amount of electricity, then ComEd's proposal to dramatically increase the customer charge would not be a very big deal. However, unlike other regions in the state of

Illinois where the housing stock may be relatively homogeneous in terms of size and type, the Chicago metropolitan area is very diverse (for example apartment buildings versus single family homes and high income consumers versus low income consumers). It is because of this diversity in housing stock that big differences in usage exit between the City of Chicago and the outside city regions of the service territory.

In ComEd's last rate case, Docket 07-0566, I presented various statistics that demonstrate the substantially lower usage in Chicago versus the outside-Chicago areas of ComEd's service area. I will not repeat that detailed analysis here. But in that case, I showed that in 2006, the median non-space use per resident per month was 346 kWh per month inside the City. By contrast, the median suburban consumer used 553 kWh per month – 60% above the City level. I am not aware of any evidence that these usage patterns have changed.

Given the lower and more efficient usage[5] in Chicago, the City has been concerned about elements of ComEd's rate structure for many years and that is the main reason we fought to eliminate the Company's declining block energy charge as well as its high customer charges for decades. In this case, were the Commission to adopt ComEd's customer charge proposal, there would be a multi-million dollar transfer of wealth from people who live in small bungalows to large mansions in Wilmette and other suburban regions. The table below shows that

[5] In Docket 07-0566, I called the lower usage in the City "more efficient," a description to which ComEd took umbrage. I will not risk offending ComEd again by referring to usage patterns in Chicago as more efficient.

$50 million in annual revenue would be taken out of the pockets of City ratepayers and put into the pockets of suburban ratepayers each year. This transfer of wealth is inequitable not only because, as I explain below, it is not cost justified, but also because City ratepayers already pay too much relative to other regions due to the age of equipment, the density of the housing stock, inequities in ComEd's rates that ignore usage (such as service drops), and the relative amount of underground and overhead lines that serve residential consumers.

	Proposed	Current	Increase	Percent Increase	Total with Equal Allocation	Transfer
City Revenues - SF	187,412,428	140,163,374	47,249,054	33.7%	171,919,701	15,492,727
City Revenues - MF	118,992,424	65,415,416	53,577,008	81.9%	80,236,358	38,756,065
City Revenues SF Space	728,557	738,427	-9,871	-1.3%	905,730	-177,174
City Revenues MF Space	12,580,033	13,823,607	-1,243,574	-9.0%	16,955,574	-4,375,540
Total	319,713,442	220,140,825	99,572,617	45.2%	270,017,364	49,696,078
Out Revenues - SF	799,991,768	668,779,441	131,212,327	19.6%	820,302,465	-20,310,697
Out Revenues - MF	104,548,419	94,608,457	9,939,962	10.5%	116,043,565	-11,495,146
Out Revenues SF Space	18,403,856	19,819,553	-1,415,697	-7.1%	24,310,001	-5,906,144
Out Revenues MF Space	34,011,001	37,499,060	-3,488,059	-9.3%	45,995,092	-11,984,091
Total	956,955,045	820,706,512	136,248,532	16.6%	1,006,651,123	-49,696,078
Grand Total	1,276,668,487	1,040,847,337	235,821,149	22.7%	1,276,668,487	0

Q. Did ComEd provide the data and perform the analysis in the table above?

A. No. The City asked ComEd to provide this analysis in a data request, but the Company claimed it would be too burdensome. Further, even though ComEd has been giving the City billing determinants separated between the City and Outside-city regions of the service territory ever since the City studied municipalizing its electric service in 1989, the Company now claims it does not have the data in this

case. Therefore, we used billing determinants provided by ComEd in its last rate case and I made the analysis myself.[6]

Cost Basis for ComEd's for ComEd's Customer Charge Increase Proposal

Q. A few paragraphs above, you wrote that ComEd's proposal is an inappropriate attempt to apply short-run marginal cost to distribution rates. Could you elaborate on what you mean by this?

A. Yes. ComEd's proposal has nothing to do with the allocation of actual costs to provide distribution service to ratepayers, the underlying principle of embedded cost of service. Distribution costs that must be allocated to various groups of ratepayers are primarily capital costs that have been incurred in the past (which ComEd calls sunk costs.) Depending on the region, the age of the equipment and the time of year, the time when ComEd provides an additional kWh of electricity, its variable cost or short-run marginal cost may be virtually nothing (except, as ComEd points out, the electricity distribution tax.) What this all means is that ComEd's whole scheme is simply a proposal to apply short-run marginal cost principles to variable distribution charges and then to collect the rest of the revenue requirement in the form of a customer charge.

[6] I am not certain why ComEd claims that performing such an analysis is "burdensome." I, did the analysis in about forty minutes after having a few drinks with my students in Prague.

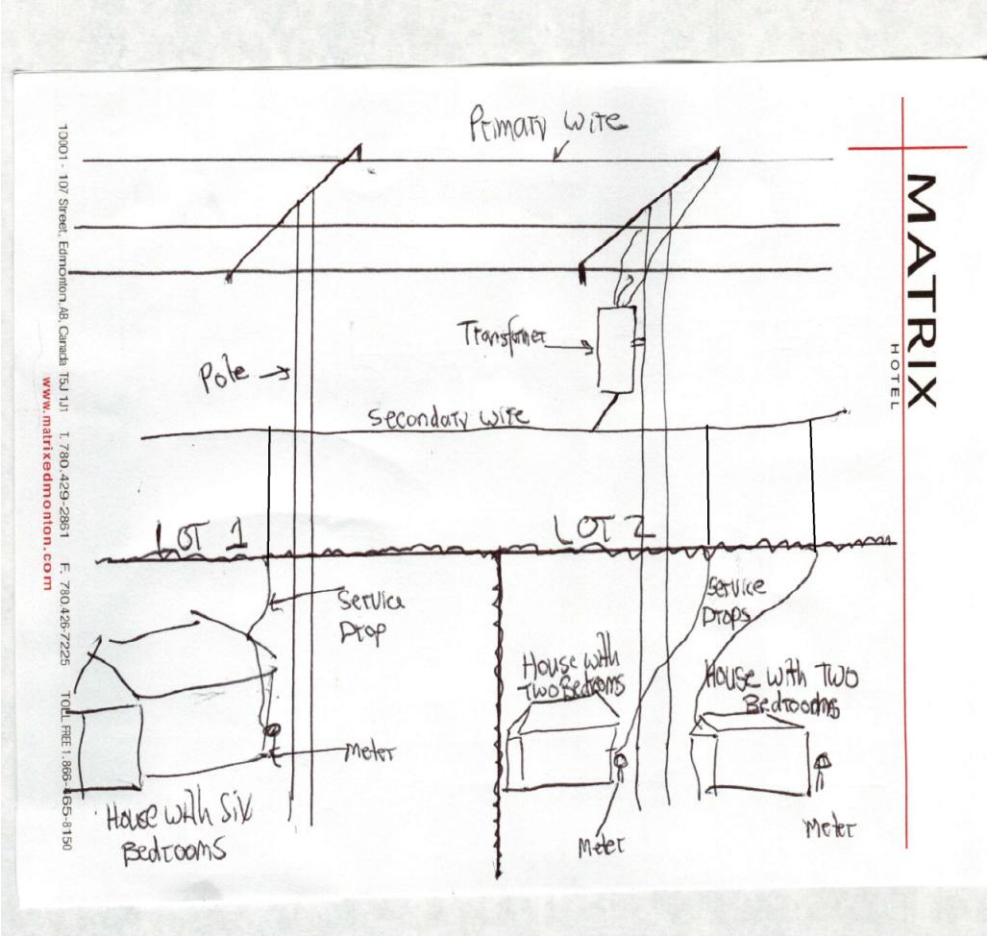
Q. From a cost of service perspective, what is wrong with ComEd's proposal to set distribution rates on the basis of short-run marginal cost and then collect the difference from customer charges?

A. It is difficult to know where to begin in discussing the conceptual flaws in ComEd's proposal from a cost of service perspective. First, their proposal runs counter to all of the Commission directives over the past fifteen years which have moved in the direction of embedded cost. Second, it contradicts numerous statements made by ComEd in its last rate case and Docket 08-0532. (For example, Mr. Heinz strongly criticized marginal cost studies in his rebuttal testimony in Docket 08-0532. *ICC v. Commonwealth Edison Company,* I.C.C. Docket 08-0532, ComEd Ex. 7.0 at 9, 12, LL 190-96, 259-61.) Third, it ignores the question of long-run marginal cost that is an essential part of any marginal cost analysis (when the Commission did apply marginal cost to distribution, it consistently used long-run marginal cost.) Fourth, the manner in which differences between short-run marginal cost and the revenue requirement would be imposed is highly discriminatory against people who live in small homes and is inconsistent with the way load is allocated between residential and non-residential ratepayers. Fifth, the proposal would not increase economic efficiency in any meaningful way. Sixth, it discourages conservation. Seventh, if the concept should be applied to residential consumers it should also be applied to business consumers. Eighth, the proposal is completely inconsistent with the

manner in which ComEd continues to make inter-class allocations. I could go on, but I think that this is enough.

Q. Before discussing some of these problems in more detail, can you prove the inequity of ComEd's proposal using a simple example?

A. Yes. Consider the following example of two families, both having two children and both with the problem of living with in-laws of the children's father. The two families live next door to each other on plots of land – lots that are exactly the same size. The first family has one home with four bedrooms and this family allows their in-laws to live in their home. The second family has decided to build two homes on its lot, each with two bedrooms. In the second case, the family wants a little privacy and cannot tolerate the in-laws under the same roof. The size of the house for the first family is exactly the same as the size of the two houses for the second family. Furthermore, the family living in the large house with its in-laws uses exactly the same amount energy as the other family that lives in two houses. Finally, the houses were built at exactly the same time. A diagram that illustrates the configuration of the homes is shown below. I apologize for my artwork.



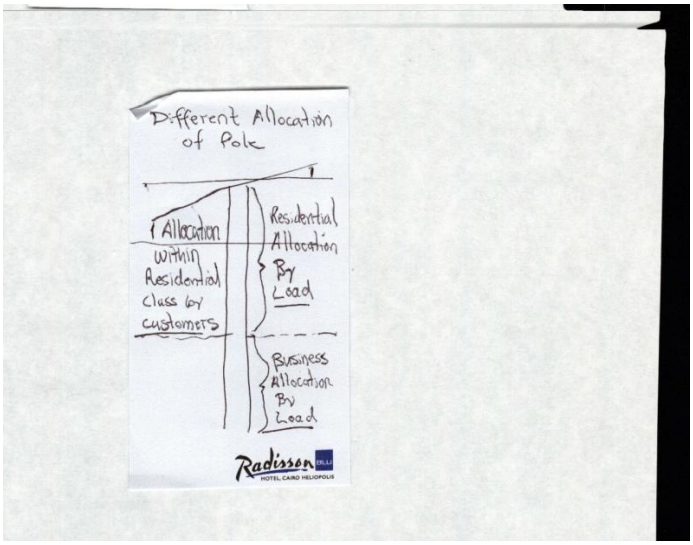
Now consider the rates and cost of service under current rates contrasted with ComEd's proposal to increase customer charges for these two scenarios. From a cost perspective, the cost of the primary lines, the poles, the secondary wire, substations, and the transformers is exactly the same. The family with two houses has an additional meter, an additional service drop, and ComEd must pay for the extra envelope and another stamp when it sends the second electric bill. Under the current system, the family with the two homes probably pays too much

relative to the family with one home because ComEd charges more in the customer charge than its real cost of billing. However, at least in the current system, the difference in rates is supposed to reflect differences in service drop costs, metering costs and billing costs. On the other hand, if ComEd's customer charge increase proposal were adopted, the difference in the rates paid by the two families would be dramatic. Even though the two families use the same amount of primary facilities, secondary facilities, transformers, substations and poles, the family with two houses would essentially pay double the electric bill of the family with one house. This difference is obviously not cost justified as the two homes use the same amount of primary lines, poles, secondary lines, substations, transformers, and allocated resources of Exelon management. The result is highly inequitable to the second family who is penalized just because they do not want their in-laws under the same roof.

Q. Isn't the above example a stylized case that is artificially constructed to support your argument?

A. Not at all. The amount that ComEd spends on construction of distribution equipment depends on the size of regional load (as well as density, overhead lines versus underground lines, and other factors). Indeed, ComEd still proposes to allocate costs between the residential and non-residential classes on the basis of load. This interclass allocation is completely inconsistent with allocating costs within the residential class, which, under ComEd's proposal, would be based on

the number of ratepayers. Consider one distribution pole illustrated in another poorly-drawn diagram. ComEd would split the cost of the pole between residential and non-residential ratepayers using the relative size of customer classes but then allocate that same pole within the residential class using an approach that ignores the size of a consumer.



The fact that costs are driven by size of loads is in fact confirmed by ComEd itself. In responding to a Commission Staff data request (a portion of which is replicated below), ComEd stated that the building of new equipment does indeed depend on the size of coincident peak load. The first sentence of the response shows that ComEd recognizes that load drives the building of new distribution equipment. (The second sentence demonstrates the remarkable lack of logic in ComEd's customer charge proposal. How on earth does the fact that

the "system is thereby designed and sized to be able to serve all reasonable levels of demand and use" justify recovering distribution costs in the customer charge.)

> [W]hen ComEd installs a new feeder, a new distribution substation, or even a customer's service drop, ComEd determines the capacity of that system component based on the projected peak load requirement over the long term. The system is ***thereby*** designed and sized to be able to serve all reasonable levels of demand and use. (Emphasis added.)

ComEd Response to Staff Data Request PR_3.04.

Q. Can you elaborate on the inconsistency between ComEd's inter-class allocation among its residential and non-residential classes and the Company's intra-class allocation within the residential class that is part of its customer charge proposal?

A. Yes, the inconsistency is glaring. When making inter-class allocations among the residential and non-residential classes, ComEd accounts for the size of the class in terms of coincident or non-coincident peak load. However, when making the allocations for ratepayers within the residential class, ComEd uses the number of customers. Energy use is closely correlated with load and is the only consistent basis for use in inter-class and intra-class allocation. This comes from the very simple fact that maximum load is related to average load. ComEd could of course suggest that inter-class allocation be made on the basis of the number of ratepayers, but that would allocate almost all distribution costs to the residential class, an almost surely indefensible position. ComEd's inconsistency in its inter-

class and intra-class allocations should alert the Commission that something is conceptually wrong with the Company's approach.

Q. If the increased customer charge proposal is applied to residential consumers because costs do not vary with usage, is there any reason not to apply the same approach to business consumers who pay for distribution n the form of demand charges as well?

A. Not at all. If short-run marginal cost does not vary with energy usage over the course of a month, there is no reason to suggest that costs should vary with maximum amount of energy used during the month. In other words, if ComEd's theory is appropriate for residential consumers, then it should be applied consistently across all classes. This means that if the customer charge is increased for the residential class as ComEd proposes, then all business consumers should pay the same customer charge whether they are a small convenient store or Northwest Steel. Such a scheme may sound crazy, but it is just what ComEd is proposing for the residential segment. (In fact, ComEd's business classes are to a large extent defined by usage – something which should be done for the residential segment.)

Q. Given that ComEd's proposal is founded on marginal cost, can you discuss the general issues of equity and efficiency in designing rates on the basis of marginal cost or embedded cost?

A. In general terms, marginal cost focuses on efficiency whereby consumers should pay prices that reflect the incremental cost of the next unit consumed. If consumers react to price (*i.e.* the price elasticity is not zero), then by setting prices at marginal cost, the amount of consumption and production will supposedly be optimal and economic efficiency will, in theory, be enhanced.

To illustrate this, consider the example of meat. Should the price of meat be below short-run variable cost of producing meat and if consumers eat more meat because of the low prices, then there would be meat shortages and economic efficiency could be increased through raising prices and reducing consumption. Note that for marginal cost to increase efficiency, price elasticity must be non-zero and consumption behavior must change in reaction to price changes.

In the case of distribution equipment for electricity, toll roads, public transport, and other network industries, it is difficult to measure marginal cost because many of the costs only occur when congestion arises. It is also questionable whether the price elasticity is very high. Consider toll roads. Economists would argue that prices you pay at the toll both should increase dramatically when you have to wait in a traffic jam, while your drive should be free when the road is empty. As prices rise, fewer people would take the toll road and the congestion would decline. With electricity distribution, marginal costs that occur when the system is congested may be almost un-measurable and, even if one could somehow measure them, the revenue requirement would still have to be collected from ratepayers. This means that even if one wanted to set prices at

short-term marginal cost, overall prices would still be different than pure marginal cost.

In contrast to marginal cost, embedded cost focuses on fairness and equity, whereby regulators attempt to allocate the actual costs that have been spent on the basis of who caused those costs to occur. For electricity distribution, the Commission has rightfully paid more attention to setting rates that are fair than in attempting to quantify marginal cost and gain efficiencies that are quite nebulous in the case of electricity distribution.

Q. If for some reason the Commission agrees with ComEd's proposal that variable or short-run marginal costs are the only costs that should be included in variable distribution charges, does this mean that the difference between the marginal cost and revenue requirement should be shoved into the customer charge?

A. Absolutely not. The idea that the difference between short-run marginal cost and the revenue requirement should be paid in a disproportionate and discriminatory manner by low use consumers is the single most outrageous part of ComEd's proposal. The manner in which ComEd allocated differences between marginal cost and revenue requirements in the old days – *i.e.* using equal proportion of marginal cost or "EPMC" -- meant that most of the difference between the revenue requirement and the marginal cost was allocated largely on the basis of energy usage, as energy costs were a big component of the overall cost. In this

proceeding, ComEd claims there are virtually no marginal distribution costs and the Commission would have to allocate the difference between the revenue requirement and marginal cost on some basis other than measured marginal cost (if the marginal cost is zero then the proportion of marginal cost would requiring dividing an number by zero.)

In the days when ComEd used marginal costs to set distribution, transmission and generation rates and it had excess generating capacity, the Company was precluded from implementing concepts which impose the difference between the revenue requirement and marginal cost on the most inelastic portion of the rate structure (this is the "Ramsey Pricing" that I mentioned above.) Instead ComEd was required to use EPMC which allocated differences between marginal cost and average cost on a non-discriminatory basis. The Company even has retained the name of the concept for the embedded cost study which it now calls "equal percentage of embedded costs" or "EPEC."[7]

Q. If the Commission adopts short-term marginal cost as the basis for setting rates, how should the difference between revenue requirements and marginal cost be allocated?

[7] The notion of EPEC makes no sense in the context of embedded cost. Other utilities simply compute the rate of return for each customer class which demonstrates whether a rate class is over or under-collecting compared to the average.

A. For a variety of reasons, the only fair basis for this allocation of revenue requirements versus marginal cost is the amount of energy used. First, energy use corresponds to the original causation of distribution costs, which, as I described above and as ComEd admitted in its response to Staff Data Request PR_3.04, depends on the size of a ratepayer. Second, allocation on the basis of energy use is similar to allocation of costs on the basis of load for business consumers, which ComEd still apparently thinks is justified for non-residential customers (maximum energy use for a month is highly correlated with energy use and not at all correlated with the number of ratepayers.) Third, allocation of the difference between revenue requirement and marginal cost on the basis of energy use allocates costs in a fairer manner to low use consumers who either require less energy because they live in smaller housing stock or make efforts to conserve energy. Finally, there is no other reasonable basis on which to allocate the difference between revenue requirements and marginal cost except to allocate the difference on the basis of increased energy use through applying an inclining rate.

Q. If ComEd's proposal to increase the customer charge were adopted, what would be the effect of allocating the difference between revenue requirements and short-term marginal cost on the basis of energy use rather than on the number of ratepayers?

A. In the current rate design (*i.e.*, without ComEd's proposed drastic increase in the customer charge), distribution costs are allocated on the basis of energy use for

residential consumers. If you believe ComEd that there are virtually no short-run marginal distribution costs, then just about all the Company's required revenue requirement is in the revenue requirement less marginal cost pot. This means allocating the difference between marginal cost and revenue requirement on the basis of energy use would be tantamount to allocation of embedded distribution costs themselves on the basis of energy. We would then be back to the current method applied by the Company. In the end there would be no difference.

Q. If the Commission agrees with ComEd's proposal to use marginal costs in setting rates, should short-run marginal rather than long-run marginal costs be the basis of the calculation?

A. For a variety of reasons, the Commission should not do an about face and return to marginal cost ideas at this time. However, if the Commission did apply marginal costs as the basis for setting rates, it should use long-run marginal costs that vary on the basis of usage. To see why this is true, all one has to do is think back a few years to when the reliability of ComEd's system was in disarray and the Company was admitting to its shareholders that no other strategic plan matters if it cannot keep the lights on. ComEd spent massive amounts on distribution facilities in Chicago after major outages in the Lakeview neighborhood and in downtown Chicago that the Company partly blamed on increases in load. ComEd later spent billions on distribution to support the housing boom and suburban sprawl when load increased. In the massive outage cases, had load been lower,

the distribution cost would also have been lower. The change in the cost as a function of the change in load was all that cost of adding new equipment not the variable cost. The cost that mattered was long-run marginal cost. Even if there is some surplus capacity on the system now, long-run marginal costs must be used because eventually the equipment will have to be replaced or supplemented.[8]

Q. What is the economic efficiency argument for lowering variable charges as ComEd would like to do?

A. The economic efficiency argument is that surplus distribution capacity exists and that people should be encouraged to use more electricity. To understand this, consider a family that is having a hard time and trying to save some money. With high variable charges and low customer charges, when a parent shouts at his or her children to turn off the lights or turn off the TV, they are probably not thinking about reducing CO2 emissions, global warming, nuclear waste from all of Exelon's plants, or other nasty environmental consequences associated with delivery and production of electricity. Rather, they are probably thinking about their electric bill. (One of the recurring memories I have of my childhood is my father yelling at me to turn off the lights.) The economic theory of setting rates at marginal cost is that if the electricity bill does not change very much when a parent shouts as his or her children to switch off lights or close the fridge, then the

[8] An example of application of long-run marginal cost is an industrial development rate developed by the Company. Just before the deregulation act was passed in 1997, ComEd proposed a rider that accounted for the surplus distribution capacity in areas where business and residential customers had left.

parents will shout less and surplus distribution capacity can be used. Economists may explain the principle in fancier terms using phrases like consumer surplus and complicated graphs, but the idea is the same. Needless to say, increases in economic efficiency generated from higher sales that is associated with increasing the customer charge are questionable to the extent that they simply encourage higher use. I also find it hard to believe that the true motivation of ComEd in making the customer charge proposal is to increase customer surplus through encouraging use of surplus distribution capacity.

Probable Reasons for ComEd's Customer Charge Increase Proposal

Q. Why should you or the Commission care about ComEd's motivations with respect to rate design?

A. Given that ComEd's likely motivation is not to create a fairer design of rates for usage sub-classes of residential consumers nor to increase consumer surplus, it is instructive to think about the more realistic purposes of Company in presenting the customer charge increase proposal. Once ComEd's probable incentives to increase the customer charge are understood, the Commission can then decide whether benefits to the Company are worth all of the negative effects of the increased customer charge on low- and moderate-use consumers. Through considering ComEd's likely motivations, one can also gain insights into a host of other rate design questions that the Company has advocated over the years. The

process of working through ComEd's probable motivations demonstrates that the Company is not at all indifferent to rate design questions, and that it would like to collect more revenues from low- and moderate-use ratepayers. For example, through understanding the motivations to increase customer charges, we can see why ComEd has been so reluctant to admit that any cost which it classifies as a billing cost, metering cost, customer information cost, billing and data management cost, customer information cost, or a host of other costs could possibly be associated with size of a customer (if costs are correlated to customer size, then they should not be included in the customer charge).

Q. Because ComEd's motivation is not to increase efficiency, what do you believe is the basis for ComEd's customer charge proposal?

A. While I am not privy to ComEd's internal management discussions with respect to rate design, past statements made by Company executives, as well as trends in sales since the financial crisis, provide insights as to why ComEd is making such a radical proposal at this time. I can imagine consultants and bankers touting the importance of reducing sales volatility after the economic upheavals of the past couple of years as well as discussions at utility rate conferences about the importance of revenue stability. Given recent economic circumstances and previous statements by management, the most plausible explanations for ComEd's customer charge proposal are revenue stability and increasing energy usage. It is very hard to believe that the Company suddenly woke up one morning

and decided the way in which it calculated cost of service in the past was bad for ratepayers and that setting a customer charge that is completely out of line with the industry would provide a fairer and/or more efficient outcome for consumers.

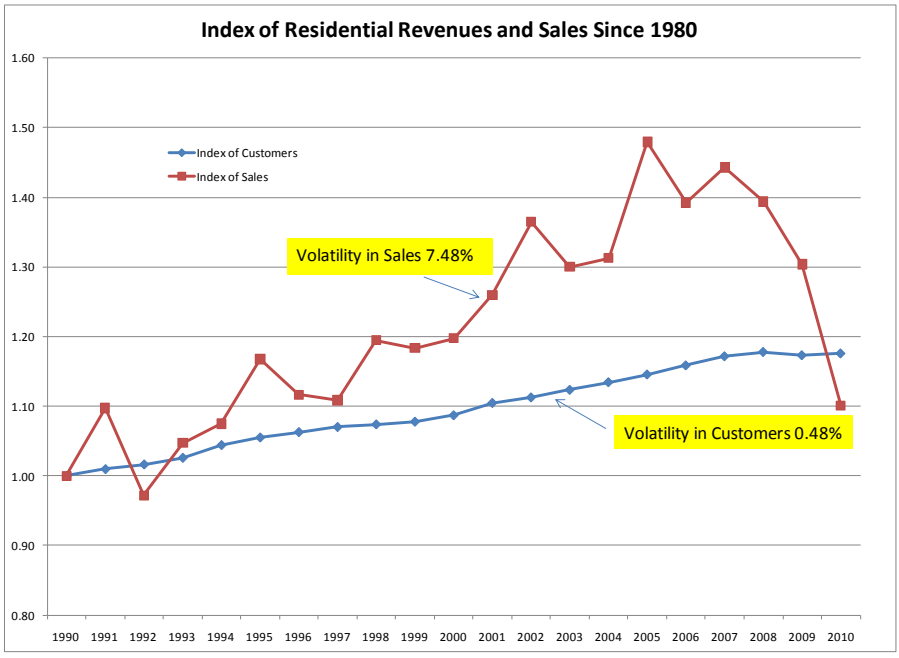
Q. Can you elaborate on how ComEd has acknowledged that one of its motivations is revenue stability in the past?

A. Yes. While ComEd did not mention the issue in this case, they discussed the effects of lower customer charges on shareholder value in Docket 08-0532. In that case, Dr. Hemphill discussed why low customer charges have "undesirable effects" of which "[f]oremost is the resulting ***destabilization of utility revenues*** and utility cost recovery, which ultimately has an impact on all other customers on the ComEd system." *ICC v. Commonwealth Edison Company,* I.C.C. Docket 08-0532, ComEd Ex. 4.0 at 14, LL 305-308.

It is pretty clear that ComEd had already been working on its customer charge proposal when Dr. Hemphill wrote that testimony and that management was attempting to come up with schemes that would result in more stable revenues. As acknowledged by Dr. Hemphill, the foremost thought in the mind of management was not trying to be fair to people who have different levels of usage in the residential class. Rather, enhancing "utility cost recovery" was the big issue.

Q. Explain how reducing variation in revenue benefits ComEd?

A. The graph below demonstrates variation in residential energy sales and variation in the number of residential customers for ComEd. If ComEd prevails with its proposal, its revenues will vary with the number of ratepayers rather than the amount of energy usage, which would greatly reduce its revenue volatility. Should the revenue have less variation, ComEd's risk and cost of capital would be reduced. Given limits on requesting higher and higher rates of return from the Commission and limits on growth potential, the best chance to increase value from the perspective of ComEd may come from lowering the cost of capital. If the cost of capital is reduced and the return does not decline in a commensurate manner, the value of ComEd – or, to be more precise, Exelon – increases.



Q. If ComEd achieved a higher level of sales because of lower distribution variable charges, would Exelon Corporation benefit?

A. Yes. ComEd asserts that consumers will react to changes in the various components of rates – not the total average rate. This can only mean one thing. With lower variable charges, ComEd's sales would increase because the customer charge is not affected by usage. The increase in sales may not be beneficial directly to ComEd, the distribution subsidiary, but it is potentially helpful to Exelon, the owner of ComEd. Indeed, in his direct testimony in this case, Dr. Hemphill discussed how changes in the structure of distribution tariffs affect the generating side of the business. ComEd Ex. 14.0 at 5, LL 98-102. Benefits to the generating side of the business occur because with increased demand, prices increase and if there is more demand in the market then Exelon Generation will be able to sell more of its output at higher prices.

While ComEd claimed in Docket 08-0532 (*ICC v. Commonwealth Edison Company*, I.C.C. Docket 08-0532, ComEd Ex. 4.0, at 5, LL. 98-99) that cost allocation and rate design issues are a zero-sum game, thereby implying that the Company does not really care about the subject, this case demonstrates that it does in fact have a big economic interest in the issue. The apparent motivation behind ComEd's statement that "the single most important step in bringing ComEd's rate design into line with its cost is to properly align the fixed and variable prices in ComEd's delivery rates with the fixed and variable costs of

customers' use of ComEd's delivery system" (ComEd Ex. 14 (Rev.) at 8, LL 179-81) is really to increase the stock price of Exelon.

Q. In its Initiating Order in Docket 08-0532, the Commission, among other things, ordered ComEd to "analyze the extent to which usage contributes to customer billing costs, data management costs, installation costs, service drops, and customer information costs and whether factors other than the number of customers in a class should be taken into account in the assignment of these costs to rate classes." ICC v. Commonwealth Edison Company, I.C.C. Docket 08-0532, Initiating Order at 2 (Sep. 10, 2008). What are the implications of ComEd's apparent motivations and its customer charge proposal with respect to the Commission's stated purpose in initiating Docket 08-0532?

A. ComEd's proposal renders the Commission directive irrelevant. ComEd's proposal also renders irrelevant the Commission's finding at page 77 of its Rate Design Order that customer information costs should be allocated based on usage. In this case, the Company dutifully attributed customer information costs to usage as it was ordered to by the Commission, but then it simply threw customer information costs and all other customer services costs into its proposed customer charges, thereby rendering the process in Docket 08-0532 and part of the Commission's Rate Design Order in that case meaningless. If ComEd had allocated all of the costs in Uniform System of Accounts ("USOA") Account 903

based on usage, (many of them have nothing to do with sending out bills or reading meters), and then plopped them into the customer charge, the exercise would also be irrelevant. In the rate design case the City spent many pages of testimony considering details of whether individual cost items were really related to the sending out of a bill or the reading of a meter (which are the only legitimate customer costs), and, for the most part, ComEd ignored the testimony. Had the City known that ComEd was planning to throw all of its distribution costs into the customer charge, perhaps it would not have undertaken the analysis the Commission asked for in its Initiating Order in Docket 08-0532.

ComEd Customer Charge Increase Proposal and Conservation and Low–Income Customers

Q. How does ComEd respond to the fact that higher energy use, which is encouraged by the proposal to increase customer charges, does not exactly encourage conservation of energy?

A. ComEd suggests that unless rates are set at short-term marginal cost, it will have a disincentive to engage in conservation programs because its revenues go down by more than its costs when conservation occurs. Unless rates are set to marginal cost, ComEd may lose a couple of pennies when conservation occurs – between the time of the reduced energy consumption and its next rate case. This testimony is disappointing on a number of fronts. First, ComEd's demand for shareholder

compensation demonstrates that it is going back to the Central Maine Power and the Massachusetts Electricity Company idea that conservation programs will only occur if shareholders receive additional compensation. Second, the whole basis of the customer charge proposal is that sales should increase with lower energy charges; this means that just to maintain current levels of sales more conservation programs are required. Third, ComEd's discussion ignores the whole basis of conservation programs; conservation programs arise from externalities and do not occur if prices are set to marginal cost. In my opinion, if prices give people an incentive to conserve, that is not a bad thing.

Q. Should ComEd's proposal to increase sales through decreasing the energy charge portion of electric bills succeed, how would the State of Illinois' position in terms of energy conservation be affected?

A. The largest utility in the State would have a rate structure less that is less favorable to energy conservation than any other utility company in the country. This would be completely inconsistent with the statements made by the Commission wherein it agreed with the idea that lower customer charges are favorable to reducing energy use. For example in its Final Order in Docket 07-0566, the Commission stated "The Commission agrees … that imposing costs on customers who use less energy is, at best, inconsistent with the General Assembly's mandate that reducing energy use is a vital policy objective of the

State." *In re Commonwealth Edison Company*, I.C.C. Docket 07-0566, Order at 211 (Sep. 10, 2008).

Q. Dr. Hemphill suggests that there is not much relationship between income and usage in part because many low use customers own vacation homes. ComEd Ex. 14.0 (Rev.) at 22-23, LL 440-49. What is your reaction to this?

A. First of all, it seems obvious that there is a correlation between income and electricity usage even if every single low use consumer does not have a low income and vice versa. In working on statistical analysis of sales in various different contexts, I have not seen a demand equation for electricity sales that does not use income as an independent variable. I do not think anybody believes that a family who lives in a Lake Forest mansion uses the same amount of electricity as low income family who live in a small apartment.

As to Dr. Hemphill's point that a lot of low of usage ratepayers are represented by customers who own vacation homes, while that phenomenon may exist, I doubt that it occurs as frequently as Dr. Hemphill implies (particularly in Chicago, one of the great cities in the world, but with winters that are a bit long.) According to the Heartland Alliance Mid-America Institute on Poverty's "2009 Report on Chicago Region Poverty", 20.5% of Chicago residents are under the federal poverty line (FPL) – that is, they make less than 100% of the FPL. 2009 Report on Chicago Poverty at 2. Of that 20.5%, 9.1% are classified as living in extreme poverty, which is defined as making less than 50% of the FPL. Another

20.6% of the people living in Chicago are classified as low income – that is, they make between 100 and 199% of the FPL. *Id*.

My guess is that there are far fewer people in Chicago who own vacation homes than there are people living below the FPL. Although I have not conducted or seen any studies, it seems extremely unlikely that 20.5% of Chicago residents, or even 9.1% of Chicago residents own vacation homes elsewhere. And to the extent that there are a fair number of people in Chicago and other parts of the ComEd service area who do own vacation homes, I suspect that they live in their second homes during the winter, the time during which demand on the ComEd system is at its lowest. It is likely that they live in Chicago during the summer. If they can afford to own a second home, my guess would also be that they use large amounts amount of electricity when here, during the time that ComEd's system is most stressed.

Q. Dr. Hemphill asserts that its low income programs offset the effects of increased customer charges. ComEd Ex. 14.0 (Rev.) at 21-22, LL 421-33. Do you agree?

A. ComEd witness Mary Anne Emmons describes several programs that that the Company currently provides to low income customers. ComEd Ex. 18.0 at 4-6, LL 72-79. Ms. Emmons goes on to say that the funding for these programs expire in 2010. *Id*. at 6, LL 82. Ms. Emmons then states that ComEd will propose making $10 million available for seven low income programs as part of the

alternative regulation filing described in Dr. Hemphill's testimony. *Id*. at 6, LL 83-86. She adds that ComEd will not be able to offer these programs if its alternative regulation proposal is rejected. *Id*. at 6-7, LL86-89

Assuming that ComEd's alternative regulation proposal is approved (which is not guaranteed), the annual $10 million payment to low income programs that ComEd would make would assist about 300,000 ratepayers per year. *Id*. at 13, LL 239-41. As shown in the table below, this amounts to a benefit of $33 per program participant per year. On the other hand, the increase in electric bills to the ratepayer from the customer charge would be $241 if the ratepayer lived in a single family home and it would be $97 if the ratepayer lived in an apartment. I understand that my analysis does not include offsetting benefits of lower variable distribution cost charges. However, given that low income ratepayers are likely to be low use ratepayers and given the fact that the costs of higher customer charges are so much higher than the benefits, it is possible, and maybe even probable that low income ratepayers will end up in a worse position, even if they receive subsidies from ComEd.

Low Income Funding per Customer versus Increase in Customer Charge	
Low Income Funding	$10,000,000
Funding After Administrative Costs	$9,000,000
Ratepayers Affected	300,000
Benefit per Ratepayer	**$30.00**
Increase in Monthly Customer Charge - Single Family	$20.10
Annual Increase in Bills from Customer Charge	**$241.20**
Increase in Monthly Customer Charge - Multi Family	$8.12
Annual Increase in Bills from Customer Charge	**$97.44**

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753 ***Conclusion Regarding ComEd's Customer Charge Proposal***

754

755 **Q. Do you recommend that the Commission simply reject ComEd's customer**
756 **charge and go back to the way the customer charge and the variable portion**
757 **of the distribution charge were differentiated in the last case?**

758 A. No. As discussed above, ComEd's testimony in this case demonstrates the likely
759 motivation for its customer charge proposal. It is clear that the Company has a
760 strong economic incentive to throw as many possible costs into the customer
761 charge. Given this incentive and the ability of ComEd to make it virtually
762 impossible to tell which costs are related to the cost of the meter, meter reading
763 and the cost of preparing and sending a bill, the Commission should be stern
764 about the customer charge. This means that the Commission should not only

reject ComEd's proposal, but should reduce rather than increase the customer charge. My proposal is that the Commission cut the customer charge in half and then direct ComEd to submit a "bottom's up" analysis that quantifies how much money it actually takes to:

- Buy stamps for sending bills;
- Pay people to put stamps on bills and prepare residential bills;
- Recover the cost of standard meters; and
- Pay people to read the meters.

All other costs should not be included in the customer charge.

STREET LIGHTING ISSUES

Q. Turning to street lighting issues, what do think about ComEd's labeling the approach the Commission directed ComEd to use as "the Chicago Method"?

A. I find this label that could be taken from the movie "The Untouchables" even more disagreeable than the meaningless SFV acronym ComEd pasted on its proposal to increase customer charges. In my opinion ComEd placed the label "Chicago Method" on the technique that the Commission adopted in its Rate Design Order for allocating secondary costs of the dusk to dawn lighting class simply to suggest it is not a reasonable method. A better name for the method is simply "use of actual costs rather than ComEd's notion of allocated costs."

Q. Before discussing ComEd's critique of the Commission's decision in Docket 08-0532, can you very briefly review things that have led to this point?

A. Yes. In ComEd's last rate case (Docket 07-0566), I testified that ComEd should perform an audit of street lighting costs and the Commission Order asked ComEd to review street lighting costs. However, when presenting its direct testimony on street lighting cost issues in the subsequent rate design case (Docket 08-0532), ComEd's witnesses presented nothing other than a few words about tariff language. Given the lack of information, the City investigated the issue of street lighting costs with City engineers itself and found that ComEd's cost allocation approach did not come close to representing the actual street lighting configuration in the City. I also pointed out that measured distribution cost of service for dusk to dawn ratepayers has increased by 99% while other cost of service categories decreased because of the change from coincident peak to non-coincident peak. *ICC v. Commonwealth Edison Company,* I.C.C. Docket 08-0532, City Ex. 1.0 (2nd Rev.) at 22, LL. 462-471. In terms of computing the cost of service for secondary wire associated with street lights not located in alleys, because ComEd had presented no analysis in its direct testimony, I attempted to estimate the actual amount of wire that is used for street lights. *Id*. at 37. ComEd argued strongly against the approach I developed, which I emphasized should be applied to the entire dusk to dawn class – not only to the City of Chicago. *ICC v. Commonwealth Edison Company,* I.C.C. Docket 08-0532, City Ex. 2.0 at 21, LL. 571-580. In the end, the Commission agreed with my testimony. Rate Design

Order at 51-55. Now, out of all of the issues resolved by the Commission in Docket 08-0532, the only issue that ComEd would like the Commission to reverse directly is the approach for computing secondary equipment for street lighting.

Q. What is your principal argument with ComEd with respect to implementing the Commission's Order?

A. I agree with ComEd that there are problems with the way I computed secondary street lighting costs and refinements to the method are warranted. ComEd witnesses have made some legitimate points in this respect. I do not however agree that it is best to "throw out the baby with the bath water" and ignore actual configuration of different street lighting systems.

Q. Before discussing cost of service issues, could you elaborate on your understanding of the street lighting configuration for dusk to dawn lighting in Chicago?

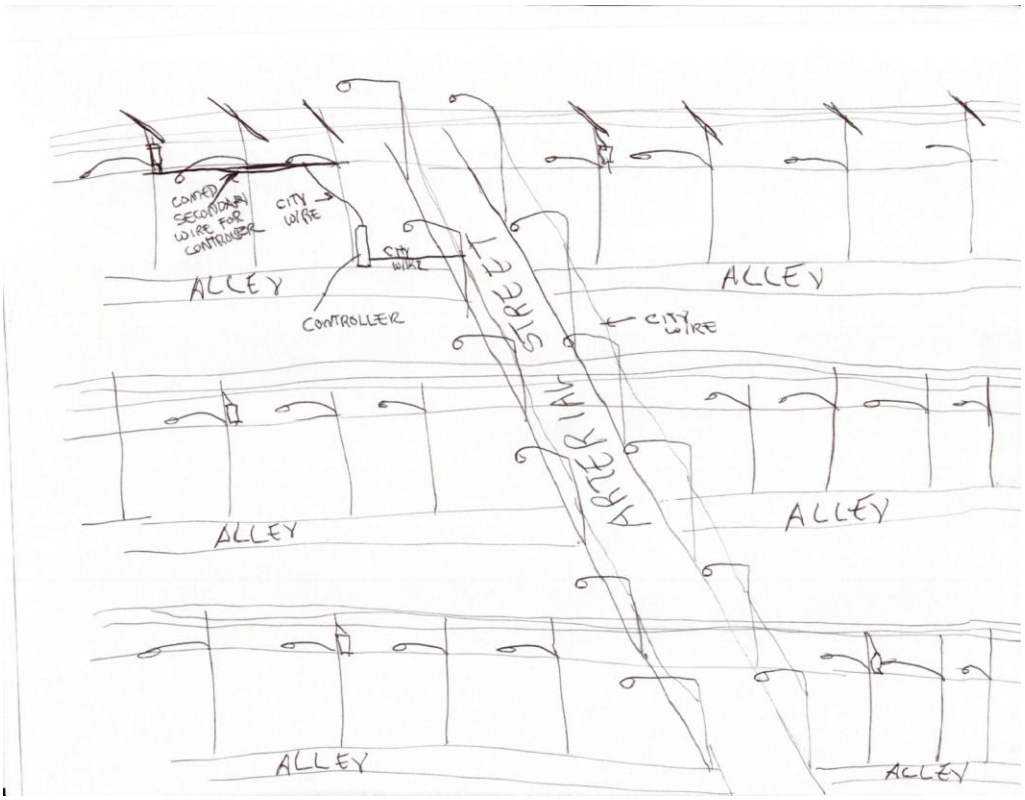
A. Yes. In the rate design case, I presented pictures of the alley lights and non-alley lights which include lights for residential streets and lights for arterial streets. *ICC v. Commonwealth Edison Company,* I.C.C. Docket 08-0532, City Ex. 1.0 (2nd Rev.) at 26, LL. 627-666. Recently, I have had more discussions with City lighting engineers and I present a not-very-elegant drawing that shows the different configurations of street lights. Differentiating between the alley lights

and other non-alley lights[9] and then computing costs for each configuration is the only thing we tried to do in the rate design case. In the case of alley lights, I noted how ComEd's approach overstated true costs for a number of reasons, which are explained below. For the non-alley lights, which serve arterial streets and smaller streets with residences, I attempted to measure the actual cost of wire between the transformer and the City-owned controllers. As a reference point, 62,074 lights in the City of Chicago are alley lights which equates to about 25% of the total street lights.

Q. What is the configuration for alley lights and how does ComEd measure its cost?

A. The diagram below is my rather weak attempt to represent the configuration of alley lights and non-alley lights in the City. The secondary wire used by the alley lights is shared proportionally with wire that serves other ratepayers and the cost must be allocated on the basis of some kind of load measure such as non-coincident peak.

[9] Lest ComEd accuse the City of seeking special treatment, I want to make clear that when I use the terms "alley lights" or "non-alley lights" in this portion of my testimony, I am referring to alley lights and non-alley lights in Chicago as well as any alley and/or non-alley lights in suburban municipalities where the municipally owned lighting braces and lights are connected to ComEd secondary wire.



It is important to note a few factors that unambiguously overstate the costs allocated to alley lights. Those factors include:

- Non-coincident load which is the basis for allocating secondary wire assumes artificial diversity in load within a class. This benefits commercial classes with diverse load and harms the street lighting class which has no diversity because all of the lights are switched on at about the same time in the evening and are switched off at about the same time when the sun rises in the morning.

- Alley lights are served from primary and secondary lines that by definition are above ground. Since a mixture of underground and overhead primary lines is assumed to serve the alley lights in ComEd's cost study, this overstates the allocation of cost.

- Even if one terms the connection between the City equipment and ComEd secondary wire as a service drops, this must not be included in the cost of service study. In particular, as discussed below, City contractors rather than ComEd have been making the service connections and the City has

been paying for them as long as anybody in the City lighting department can remember.

Q. Can you describe the configuration for non-alley lights and what is the appropriate cost treatment?

A. Yes. In the diagram above I included a feeble attempt to draw how ComEd equipment and City equipment are used for lights that serve arterial streets and residential streets. (Arterial street are major streets like Ashland Avenue, while residential streets are less busy roads with homes on each side.) In the case of residential and arterial street lights, much less ComEd wire (in terms of length at least) is used to provide electricity to the lights. The picture above shows that secondary lines are used on a continual basis to serve alley lights, while a smaller amount of ComEd wire is used to serve the arterial and residential lights. In a sense, the City-owned wire between its street lights replaces all of the secondary wire that is used in the case of the alley lights. The difference in configuration is the reason I attempted to develop an alternative costing method for the alley lights and for the non-alley lights when presenting my testimony in Docket 08-0532. As I wrote above, this attempt to reflect actual costs is really not such a radical idea as I am merely trying describe the actual facilities that are used to serve City.

Q. Why is configuration of alley lights and important issue in this case?

A. Prior to this proceeding ComEd implicitly assumed all street lights were configured like the alley lights when it performed its cost of service studies. It did

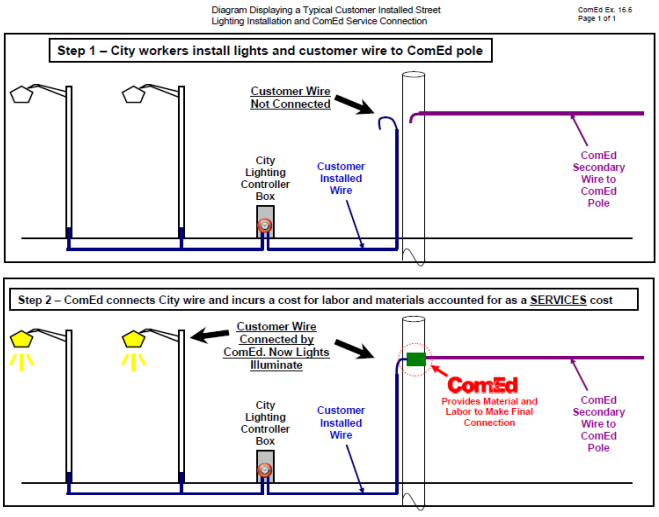
not attempt to account for equipment that is really used to serve the street lights; it did not investigate who really makes the connections between ComEd equipment and City equipment; and it did not investigate the relationship between differences in configuration and cost. Even though differences in the configuration of street lights clearly warrant a costing method that distinguishes between the different types of lights, apparently ComEd would like to return to the assumption that street lights and alley lights are configured in the same way.

Q. Attached to Mr. Alongi's testimony is ComEd Ex. 16.6, which Mr. Alongi claims represents how the City's street lights connect to ComEd's system. Please your diagram with the one presented by ComEd.

A. The first thing the ComEd diagram – replicated below -- shows is that the Company can make better diagrams than me. The whole point of the two diagrams presented by the Company is to show that ComEd employees are supposed to connect two wires together when new street lights are installed. ComEd asserts that the cost of this connection is classified as a service drop cost in the cost of service study.

Given the emphasis that ComEd placed on the service drop issue, I went back to the City engineers and asked them about the process of making connections with ComEd. I wanted to know how many service connections were made and if they had any insight into the cost, timing and process of those connections so that we could check ComEd's numbers. The answers I received

were surprising and unexpected. Even though ComEd claims that it makes the connections between City wire and their secondary wire, this is not what actually happens. City employees and City contractors make the connections between City wire and ComEd secondary wire for alley lights, arterial street lights and for residential street lights. One of the City engineers indicated that because of scheduling difficulties, for many years it has been difficult to get ComEd to actually connect ComEd's wire to the City's wire in a reasonable timeframe. The City engineers added that residents rightfully complain when their street lights are out. As a result, the City has decided that it cannot wait for ComEd to make the connection that Mr. Alongi contends the Company makes. Instead, the City engineers said that City employees and City contractors make the connection. The story of who actually connects City facilities to ComEd's system tells you a lot about the large gap between ComEd's cost of service study and reality.



Q. Turning to the mechanics of computing secondary street light costs, comment on the manner in which ComEd implemented the Commission's Rate Design Order with respect to secondary street light costs.

A. It seems to me that the Company purposely attempted to implement the method in a way that would derail the concept. In particular, ComEd interpreted the Commission's Order in a literal manner that is analogous to a child putting a bag of garbage on the front porch after he or she is asked to take the garbage out. The most glaring thing ComEd did was to not apply the same or a similar method to municipalities outside the City of Chicago that have similar configurations. Other ways ComEd did not apply the method in a reasonable manner is by not making fairly obvious calculations about how the approach could be improved. Finally, ComEd did not incorporate the method on a reasonable basis in its cost of service study and it did not illustrate how the numbers can be updated going forward for the entire service territory.

Q. Before addressing the specific complaints made by ComEd, please describe the alternatives that ComEd had regarding the method you developed for computing the costs of non-alley lights.

A. As I see it, ComEd had the following alternatives. First, it could have simply accepted the costing approach ordered by the Commission and then applied that method to the whole dusk to dawn class including the suburbs, as it is a vast improvement over earlier methods used by the Company, which assumed the

alley light type configuration described above. Second, it could have accepted the method and made modifications related to complaints it has about such items as operation and maintenance expenses and then applied the modified method to non-City street lighting configurations. Third, ComEd could have investigated the actual cost that it has included in its USOA Accounts for the true cost of bolts required to connect the secondary line with City-owned lines. Fourth, ComEd could recommend that the Commission completely ignore actual costs and pretend that all street lights have a configuration that includes underground costs, hypothetical service drop costs, and that ignores differences in configurations.

Q. Which alternative did ComEd select?

A. It appears ComEd chose the worst possible alternative from the standpoint of fairness and accuracy; it proposed to ignore actual configurations and to go back to the old method of assuming that all street lights have a configuration similar to the alley lights configuration discussed above. For some reason, ComEd seems very reluctant to investigate actual costs and also seems averse to making an effort to reflect real configurations in its cost of service study.

Q. Have you been clear in the past that the cost approaches you recommend should not only apply to the City of Chicago street lights, but should also apply to other municipalities with similar configurations?

A. Absolutely. Contrary to ComEd's claim, the City has never sought special treatment, the City has repeated the point over and over again that municipalities that have similar street and/or alley lighting configurations as Chicago should receive the same rate treatment. *ICC v. Commonwealth Edison Company,* I.C.C. Docket 08-0532, City Ex. 2.0 at 27, LL. 574-577. Despite the City's repeated statements to that effect, ComEd keeps creating a stalking horse by which it can claim we at the City are trying to receive some kind of special treatment. For example, in its testimony in this case, Mr. Alongi testifies:

> Moreover, the Chicago Method treats dusk to dawn street lighting located in Chicago differently from dusk to dawn street lighting located elsewhere in ComEd's service territory, even though ComEd provides service to dusk to dawn street lighting in the same manner whether the street lights are located in Chicago, or a suburb, or a rural area such as Freeport."

ComEd Ex. 16.0 at 34, LL 665-669. The implication in this statement is clear -- that the City wants street lighting located in the City to be treated differently than other municipalities -- is blatantly false. In my rebuttal testimony in Docket 08-0532, I wrote: "The City is not claiming that similarly-situated municipalities should not receive the same rate treatment as the City should receive. Any insinuation on ComEd's part that the City is seeking special treatment is unfair." *ICC v. Commonwealth Edison Company,* I.C.C. Docket 08-0532, City Ex. 2.0 at 27, LL. 161-163.

Q. Is there anything in the Commission's Rate Design Order that precluded ComEd from applying a similar method to municipalities outside of the City that have similar configurations?

A. No. While I am not an attorney, I do not see any such limitation in the Rate Design Order.

Q. Could ComEd have made similar calculations that it used for City of Chicago dusk to dawn lighting for municipalities other than the City of Chicago that have similar configurations?

A. Yes. Data in is available to ComEd. The calculation is simple. The Company could have easily developed the same type of analysis for the non-City municipalities with similar configurations. It could have combined all of the non-Chicago accounts into one group or they could have made a separate calculation for each municipality. This may seem like a lot of analysis, but it is less than the calculations that are made for the fixture included lights where ComEd computes a whole series of different costs and different rates. ComEd did not state that the reason it could not apply the method to other municipalities was because it is too burdensome.

Q. ComEd made some specific criticisms of the Commission-approved approach for computing the cost of service for non-alley lights. Please summarize their comments.

A. After changing the most important number in the table used to compute the cost of secondary street light service for non-alley lights (i.e., the cost per foot of wire), ComEd raised the following complaints about the method I suggested in Docket 08-0532:

- I allowed some costs to fall through the cracks because "the Chicago Method plainly ignores all the other costs that an ECOSS appropriately recognizes as costs." ComEd Ex. 6.0 (Rev.) at 33, LL 618-19.

- ComEd asserts that I did not include "ongoing maintenance and operating costs" for the secondary wire between the transformer and the City equipment as well as overheads associated with the cost. *Id*. at LL 619-21.

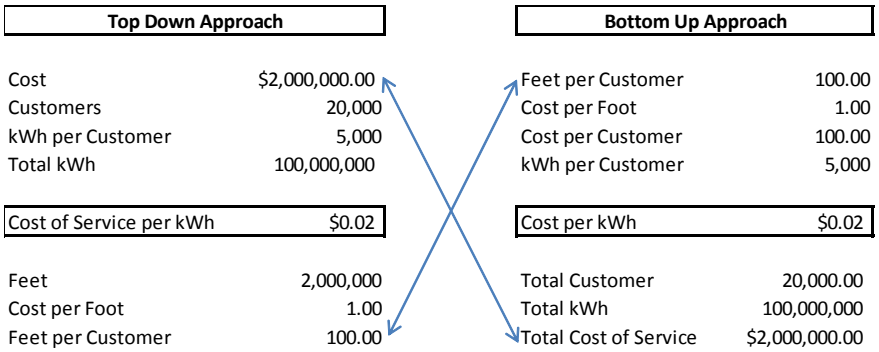
- Finally, one of ComEd's big complaints, which I have already mentioned, is that "there is no cost associated with the labor and material required for ComEd to connect Chicago's wire to ComEd's secondary system so that electricity can be delivered to Chicago's street lights." *Id*. at LL 621-23. These are the costs that ComEd classifies as associated with the service drops for connections that the City pays for and not ComEd.

Q. Are some of ComEd's complaints in the above list reasonable?

A. Yes they are. I attempted to compute actual costs when I presented my testimony in Docket 08-0532 and I admit that I made some mistakes. A couple of the mistakes increase the estimated secondary cost of the street lights and other mistakes reduce the cost. I present corrections to the earlier analysis below.

Q. Before discussing the details of computing secondary costs for non-alley lighting, could you discuss the main difference in philosophy between your approach and the approach used by ComEd?

A. ComEd's approach is to use a top down method where it lumps all secondary wire together and divides the total cost between ratepayers according to the non-coincident load of the ratepayer classes. The method I used works from the bottom up where the amount of wire serving particular customers is examined and then the cost of the wire is accumulated according to the number of connections. In theory, both approaches should lead to the same result. To illustrate this, imagine a simple secondary system where all wire has similar costs and all ratepayers use the same amount of electricity. In this case, the cost of service can be either computed by starting with the total cost of $2,000,000 and dividing this among ratepayers or alternatively beginning with the feet per customer and then computing the cost per foot of wire.



Q. Why is the bottom up approach better than the top down approach in the case of measuring secondary street light service?

A. There are two reasons. First, the costs using a bottom up approach can be reasonably estimated. Second, the alternative of computing top down costs is not reasonable because, unlike my simple example above, street lighting configurations and facilities are not the same. The top down approach does not account for (1) differences in overhead and underground lines used to serve different street lighting systems, (2) the density of lines in the City as compared to other municipalities, and (3) the configuration of street lighting systems. Finally, although there are estimates required in making the calculation, even if the most unfavorable assumptions are made, results of the bottom up approach result in a much lower cost in serving City street lights than the top down method.

Q. When ComEd made its filing, did it use the Commission-approved approach you developed in Docket 08-0532?

A. No. In computing the cost per foot of wire, I used the cost of primary and secondary wire that ComEd records in USOA Account 365 because of the odd circumstance that the cost of secondary wire in the Chicago is higher than the cost of primary wire. The number I used for the combined cost of the wire was $1.82 per foot. Using the same approach with updated data, that cost is $1.78 per foot. ComEd on the other hand, used the much higher cost of $3.05 per foot in its presentation of the approach I used in Docket 08-0532. The difference between ComEd's number and mine is driven by a single account for secondary wire in the City named "Other" for which the cost per foot of wire was $6.69. A table that

summarizes the cost per foot of wire with and without the "Other" USOA Account is shown below. The obvious question that only ComEd can answer is whether the wire from the transformers to the City owned controllers consist of this very expensive wire that had an average cost of $6.69 per foot.

Overhead Cost of Wire in Account 365 per Foot		
	With "Other" Account	Without "Other" Account
Total Primary and Secondary in City	1.78	1.11
Secondary in City	3.05	0.95
Total Primary and Secondary for System	1.24	1.17
Secondary for System	2.45	2.05

Q. Do you agree with ComEd's critique about not including O&M expenses in the approach?

A. Yes. I have included an allocation of O&M expenses as well as expenses for taxes other than income and administrative expenses in my analysis below. I computed these expenses by tabulating the total operating expenses for secondary lines and dividing the total by the plant in service for secondary lines presented in the functionalization section of the cost of service study. This calculation yields a number implying that O&M expenses are 3.9% of the total plant cost.

Q. In reviewing the calculation, did you find that other adjustments are appropriate in addition to the inclusion of O&M costs?

A. Yes. ComEd allocates intangible and general plant to each account and this should have been included in the calculation. In addition, when ComEd computed its estimate of 113 feet of wire associated with the non-alley lights, it did not adjust for the fact that there are other taps on the wire and it is not all used by Street Lighting. In other words, my investigation of ComEd's 113 feet of wire estimate showed that other customers, such as residences and businesses, are served by that piece of wire. Therefore, the cost of that piece of wire should reflect the fact that other customers are served from it. I have included an allocation of 5.88% for general and intangible plant and also divided the wire by three to account for uses other than lighting from the line.

Q. Can you review details of how you computed the cost of the secondary wire that is used to service arterial and residential street lights?

A. This is somewhat tedious, but I think it is useful to present details of the calculation for secondary wire for non-alley lights as well as the data sources for the calculation. The table below shows that the approach lowers secondary cost of service by about 75%.

Cost of Service for Arterial and Residential Dusk to Dawn Lighting			
Item	**Source**	**Amount**	**Comments**
1 Cost per Foot of Wire	Data from ComEd Exibit 16.5	$3.05	Select accounts that are wire in account 365 and divide by the quantity in feet; Include overhead secondary wire in City of Chicago
2 Total Number Controllers	Controller Count from City of Chicago	10,868	Comes from the City; ComEd presented data for the number of points of supply for non-city in Data Request PR 7.04
3 Feet per Controller	From ComEd CEGIS Limited Sample	113	City engineers believed the number was 40 feet; but ComEd instead used a small sample from CEGIS; It would be best if ComEd computed the total amount of the wire
4 Percent Used by Non-Alley City Lights	Estimate	33%	ComEd assumed that the total span of wire is attributable to Non-Alley Lighting use. In fact, only a portion of the wire should be attributed to lighting as there are other taps on the wire between the transformer and the City connection.
4 Total Feet	Calculation: Feet/Controller x Controllers	405,268	Multiply Line 2 by Line 3
5 Plant Cost for Non-Alley Lights	Calculation: Feet x Cost/Number of Feet	$1,236,066.55	Multiply Line 1 by Line 4; Note that since this number is from account 365, the data is also from the plant account
6 Adder for Intangible and General Plant	From ComEd ECOSS; Secondary Wires	5.88%	In the functionalization section of the ECOSS, ComEd computes the cost of general plant and the cost of intangibles allocated to secondary wires. The percentage is computed through dividing general and intangible by the total plant.
7 Allocated Intangible and General Plant	Calculation: Percent x Plant Cost	$72,670.11	Multiply Line 6 by Line 5
8 Total Plant including Intangible and General	Calculation: Intangible & General + Distribution	$1,308,736.66	Add Line 7 to Line 5
6 Accumulted Depreciation and ADIT Pct	1-(Gross Plant/Rate Base) from ECOSS	48.6%	In the functionalization section of the ECOSS, ComEd computes both the gross plant and the rate base for various items. This percentage is from the secondary wire.
7 Rate Base (Total Cost x (1-Acc Dep & ADIT)	Cost x (1-Acc Dep &ADIT)	$672,690.64	This calculation uses the total plant cost and reduces it using the calculation above for accumulated depreciation and other items
8 Rate Base and Gross Up Percent	ComEd ECOSS, Ex. 22.1, 2a, line 112	12.54%	This number is directly from the cost of service study; when the final number is used in the rate case, this should be adjusted
9 Return on Rate Base	Rate Base x Gross Up	$84,355.41	Multiply Line 8 by Line 7
10 Depreciation Percent	ComEd ECOSS -- Secondary Wire Distribution Expense/Secondary Plant in Service	2.87%	The depreciation rate is computed through dividing the depreciation expense in the ECOSS function page for secondary wire by the total plant in service
11 Depreciation Expense	Cost x Dep Pct	$35,475.11	
12 O&M as Percent of Total Plant	ComEd ECOSS	3.73%	This is computed from the total O&M Expense including administrative expenses and taxes other than income for secondary wires in the ECOSS divided by total plant.
13 Allocated O&M Expenses	Percent x Plant Balance	$48,760.19	Multiply Line 12 by Line 8
14 Total Cost Using Actual Configuration	Dep + Return on Rate Base + O&M	$168,590.70	Line 9 Plus Line 11 Plus Line 13

ComEd Secondary Cost in ECOSS without Secondary Volatage, Transformers	
Allocated Cost of Services and Lines	1,672,334.27
City Non-Alley Percent	41%
Total Top-Down Cost Allocation	$693,631.27
Bottom-Up Allocation	$168,590.70
Bottom-Up as Percent of Top-Down	**24.31%**

Q. In making the calculation above, you attributed one-third of the wire from span between the City connection and the transformer to City lighting because the wire is not exclusively used for lighting. If you make different assumptions with respect to this ratio and the cost per foot of wire, how does it affect the above calculations?

A. The table below shows the effect of making alternative assumptions that about how much of the wire span is used by City Street lighting as well as alternative estimates of the cost per foot of wire. Even if one uses ComEd's high cost of wire estimate of $3.05 per foot and the very unrealistic assumption that no wire in the span is used for anything other than City lighting (which I admit that I incorrectly made in my testimony in 08-0532), the secondary cost using the bottom up method is 26% less than ComEd's top down approach.

Bottom Up Cost as Percent of Top Down Cost

		Percent Usage by Non-Alley Lights			
		25%	33%	50%	100%
Cost per Foot	3.05	18.4%	24.3%	36.8%	73.7%
	1.78	10.7%	14.2%	21.5%	43.0%
	0.95	5.7%	7.6%	11.5%	22.9%

Q. Could you elaborate on the issue of how many feet there are between the transformer and the City controller?

A. Yes. In my direct testimony in Docket 08-0532, I used an estimate of wire between ComEd's transformer and the City connection of approximately 40 to 50 feet. ComEd responded when writing its rebuttal testimony in the Docket 08-0532, that the amount of wire should be 113 feet. *ICC v. Commonwealth Edison Company*, I.C.C. Docket 08-0532, ComEd Ex. 6.0 at 48-49, LL 1105-25. ComEd's witness, Mr. Alongi, discussed how he used "a small section" of the city in making this estimate. *Id*. at LL 1106. Out of almost 11,000 service connections, ComEd sampled a total of eight spans of wire. *ICC v. Commonwealth Edison Company*, I.C.C. Docket 08-0532, ComEd Ex. 6.12. Needless to say, I think ComEd could do a little more work on the issue and take some more samples.

Q. Can you elaborate on the cost of connecting the two wires that ComEd labels as a service drop cost which in fact does not exist?

A. As described above, ComEd does not in fact make the connections between ComEd wire and City wire. ComEd labels these costs as service drop costs. Because ComEd does not actually incur these costs, the costs obviously should not be included in the cost of service study. The fact that ComEd has been charging the City for service drop costs in the past even though no actual costs are incurred by ComEd points to serious problems with the entire method of allocating service drop costs in ComEd's cost of service study.

Q. What is wrong with the way ComEd computes the cost of service drops?

A. There are a lot of things wrong with ComEd's approach for allocating service drops. First, the method does not differentiate costs according to usage, where ratepayers who live in a bungalow pay the same as a ratepayer who lives in a Lake Forest mansion. Second, the method does not allow one to track how actual costs were spent. For purposes of the issue of connecting the ComEd line with the City street light line, this means that there is no way one can track the cost of connecting the two wires. Account 369 records the cost of service drops. If the cost of connecting the wires is not recorded in the service drop then it must of course not be included as a separate item in the cost of service study.

Q. Given all of the problems with respect to the cost of service drops, what is your recommendation?

A. I recommend that the Commission order ComEd to fundamentally change the way it treats the cost of service drops. Using its graphical information system or sampling techniques that are more robust than it used in Docket 08-0532, ComEd should sample the actual feet of wire used for service drops in different classes. Then, it should examine the actual cost of the wire and installation for different customer classes. Once the actual cost is determined, this should be used for allocation of cost of service. Until ComEd verifies the cost of services, I recommend that no service cost be added to any suburban or City street lighting account.

Q. Please summarize your recommendations with respect to secondary street lighting costs.

A. Yes. First and foremost, ComEd must apply the same method to non-Chicago municipalities with similar configurations as it does to the City. This has always been our position and we are not asking for any special treatment as ComEd implies. Second, for the dusk to dawn street lighting class, ComEd should be ordered to differentiate between the lights that are structured like City alley lights from non-alley lights that use City-owned wire. Third, when computing costs for the non-alley cost of service, the actual cost of the configuration should be computed using the technique that I presented above. In making this calculation, O&M expense as well as associated overheads should be included in the calculation. Finally, no cost of service drops should be included in any street lighting account until ComEd verifies the actual costs that have been incurred for the service drops that have been installed.

UNCOLLECTIBLE ACCOUNT ISSUES

Q. Please provide a brief review of the issue of cost allocation to different groups of uncollectible USOA Accounts?

A. In ComEd's last rate case (Docket 07-0566), the Commission agreed with the City's position that uncollectible costs should not be allocated to ratepayers

according to the amounts associated with each residential sub-class. *In re Commonwealth Edison Company*, I.C.C. Docket 07-0566, Order at 211-12 (Sep. 10, 2008). Among other problems, the old method of allocating uncollectible expenses resulted in low income consumers who pay their bills incurring disproportionately high costs associated with other low-income consumers who do not pay their bills. The City argued that the previous policy of putting uncollectible accounts into groups was tantamount to redlining, where one group of people -- multi-family consumers -- would be treated in a discriminatory manner as a function of being in a group rather than on an individual basis. When the Commission's Order in 07-0566 mandated that ComEd change the way it allocates uncollectible accounts, the Company did not acquiesce willingly. Instead, in Docket 08-0532, ComEd and others argued strongly that the Commission should reverse its recently-announced decision. The Commission rejected these pleas the issue and did not change the decision it made in Docket 07-0566.

Q. How did ComEd implement the Commission's Orders in Dockets 07-0566 and 08-0532 in this case?

A. ComEd derived that the amount of uncollectible costs for residential ratepayers attributed to the distribution segment of the company was $37.3 million. It then allocated the cost to the single-family classes and the multi-family classes according to the amount of revenue it collects. This results in 77% of the total

uncollectible costs being allocated to the single-family class and 23% of the total being allocated to the multi-family class as shown on the table below.

Alternative Allocation Percentages withing the Residential Class

	Single Family	Multi-Family
Uncollectible Allocation	77.2%	22.8%
Customer Allocation	66.0%	34.0%
Energy Allocation	78.4%	21.6%
Total Cost of Service	77.2%	22.8%

Q. Is there a problem with the way ComEd made the allocation between sub-classes?

A. No, although it would have been more equitable to allocate the costs according to energy usage.

Q. Are there other problems with the manner in which ComEd implemented the Commission's directive?

A. Yes. Even though ComEd allocated the direct costs of uncollectible costs in a reasonable manner, it ignored the indirect costs of collecting, administering, managing, disconnecting, and reconnecting uncollectible accounts. These costs, which are similar in magnitude to uncollectible costs, should be allocated in the same manner as uncollectible costs.

Q. Have you estimated the indirect costs of administering and collecting amounts from ratepayers?

A. I have not computed all of the costs that are indirectly attributable to credit collections such as the call center costs associated with collections, the costs of disconnecting and reconnecting customers, the costs of credit analysis, and so forth in this case. However, in Docket 08-0532, I computed these costs as $34 million. Given the increase in uncollectible accounts and delinquent accounts that has occurred with the recession and the financial crisis, I expect that these costs have increased significantly. Of course ComEd is in the best position to compute the costs and should be ordered to break out costs that are related to uncollectible accounts.

Q. How are the costs that are related to collections, credit analysis, disconnection, and re-connection currently allocated in ComEd's cost of service study?

A. ComEd includes most of the costs in its "data and billing analysis" category which means that the Company allocates the costs on the basis of the number of customers. This implies that out of the total costs for collections, credit analysis, disconnection and reconnection that are allocated to the residential class, 66% are allocated to single family ratepayers and 34% are allocated to multi-family ratepayers. By comparison, uncollectible USOA Accounts resulted in allocation

percentages of 77% and 23% respectively, meaning that a consistent treatment would reduce allocation of the costs to the multi-family sub-class.

Q. Please explain why it is inappropriate to treat uncollectible expenses one way for ratemaking purposes and the indirect cost associated with uncollectible expenses in another way.

A. To illustrate the issue, consider the story of the woman with breast cancer who is having a difficult struggle to keep paying her electric bill that was recounted by Ms. Emmons of ComEd in the utility's alternative rate regulation filing. *In re Commonwealth Edison Company*, I.C.C. Docket 10-0527, ComEd Ex. 5.0 at 8-9, LL 128-38. It would be unfair to impose a disproportionate amount of the uncollectible accounts costs on this ratepayer by allocating her costs of uncollectible accounts that are experienced by ComEd from people in similar difficult circumstances. It is better to allocate uncollectible costs on the basis of revenues. This was the conceptual basis of the method adopted by the Commission in Docket 07-0566 and affirmed in Docket 08-0532. Applying the principle to uncollectible costs but not other costs that are related to uncollectible expenses is inconsistent with the principle that was established by the Commission. It would be just as unfair to impose costs of collection, disconnection, reconnection, and so forth in a disproportionate manner on the woman who is struggling to pay her electric bill as it would be to have her incur disproportionate costs of uncollectible expenses themselves.

Q. How does ComEd treat uncollectible expenses for purposes of rate design?

A. ComEd attributes the uncollectible expenses to both energy charges and to customer charges as shown in the table below. The table demonstrates that ComEd continues to allocate 39% of uncollectible costs in the customer charge. Imposing such a high level of uncollectible expenses in the customer charge portion of the electric bill results in low use ratepayers paying a relatively high proportion of the costs. It would be far more equitable to impose the uncollectible costs in the same manner as the electricity distribution tax; that is on the basis of energy sold.

	Residential Uncollectible	Percent of Total
Distribution	19,281,241	59%
Metering Services	3,372,474	10%
Customer	9,280,734	28%
Distribution Tax	905,548	3%
Total	32,839,997	100%
Customer and Meter	12,653,208	39%

MISCELLANEOUS ISSUES

Q. At the beginning of your testimony you indicated that besides the three main topics of your testimony, there are certain issues that you would like to address. What are those additional topics?

A. These issues are described below.

- ***Differentiating rates according to the stark variations in the configuration, age and spending for facilities in different ratepayers***. The Commission should consider requiring ComEd to account in its cost of service study the dramatic differences in the age, appearance, density, and configuration of distribution equipment for areas such as the City of Chicago relative to other parts of ComEd's service area, such as newly built suburban subdivisions. This could be implemented on a practical basis by requiring ComEd to develop separate rates for those customers who are primarily served from overhead facilities versus those ratepayers who are served from underground facilities. From my travels associated with other aspects of my business, I can attest that the ComEd's often tangled mass of overhead wires in the alleys of Chicago resemble systems like Lagos, Nigeria while ComEd's underground configurations in suburban areas are similar to those in Switzerland (where an above ground transformer would be considered an antique relic worthy of putting in a museum.) While the City has raised this issue in the past and continues to be concerned about the rate inequities resulting from the different configurations and ages of facilities used to serve customers in different parts of ComEd's service area, given all of the other disputes that must be resolved by the Commission in this case, this issue wait for another day.

- ***Advocating for changes in the manner by which ComEd differentiates ratepayers in the residential class.*** From its earlier proposal in its penultimate rate case to consolidate the single-family and multi-family residential rate classes to its proposal recommendation to combine the space-heating class with the non-space heating class in this case, it seems that ComEd would like to lump all of its residential ratepayers into as few groups as possible (and then impose the same gigantic customer charge on all of them.) Fairness dictates that the opposite approach should be adopted; that is, the residential rate classes should be differentiated in a much finer manner. In particular, ComEd's current differentiation between multi-family residences and single family homes does a poor job of reflecting differences in the way customers use electricity. For example, ComEd classifies a newly built townhouse in the suburbs and a multi-story apartment near the lake together in the same class even though the usage and costs for consumers who live in these structures are likely to be dramatically different. As with my previous discussion of differences in service configurations in, and age of equipment used to serve different parts of ComEd's service areas, I am not proposing that the Commission increase the number of residential rate

classes. However, I recommend that the Commission reject ComEd's proposal to combine the space heating and non-space heating residential classes.

- ***Revisiting usage-based analysis of customer costs.*** As discussed above, this matter has been obfuscated by ComEd by its refusal to engage in debates and unwillingness or inability to provide useful information regarding this topic. I submitted extensive testimony, and the City addressed this issue in its briefs in the Docket 08-0532. I think the City made a compelling case. The City certainly appreciates the Commission directing that the issue be studied as part of its Initiating Order in Docket 08-0532. While the City believes that its arguments were correct in that case, we accept the fact that the Commission disagreed with our position.[10] Thus, I am not addressing the point in detail here, nor am I making any recommendations regarding this issue. However, I recommend that the Commission reconsider the customer costs issue in a future case.

- ***Refining the manner in which ComEd allocates amounts in "the 900-numbered USOA Accounts" between residential and non-residential consumers.*** The provision of the Commission's Rate Design Order regarding the way in which ComEd allocates money in these Accounts between residential and non-residential ratepayers may not seem to be a big deal, but a lot of costs have been allocated on a much fairer basis as a result of the Commission's Order. For example, in Docket 08-0532, ComEd claimed that the proportion of residential bills that were checked for billing errors as a percent of total ratepayers was about the same as the proportion of non-residential bills. When I reviewed the actual data, it turned out that only three out of 625 accounts (yes, three) were for multi-family ratepayers. This implied that out of $489,920 in costs for billing errors, only $2,352 should be allocated to the multi-family class. ($2,352 still seems like a lot for reviewing three bills.) Similarly, the record in Docket 08-0532 showed that big changes were warranted for customer installation costs, customer assistance costs, and customer information costs. Despite transferring more costs

[10] The City's willingness to accept the Commission's decision in the Rate Design Order is in contrast with ComEd's testimony, in which Company witnesses, in defiance of the Commission's Rate Design Order, are trying to revivify arguments the Company made in its last rate case and in Docket 08-0532. As I discussed above, ComEd attempts to impose a cost of service on arterial and residential street lighting in Chicago that has nothing whatsoever to do with the actual configuration of the City's street lighting equipment.

from residential to non-residential classes, ComEd's analysis was far from complete. One particularly glaring problem is that ComEd did not make an analysis of USOA Account 903 which has the more money than the other 900-numbered accounts related to customer costs. Many functions in this account are should clearly not be allocated on the basis of the number of ratepayers (for example the account includes expenses for "post 2006 transition projects" that are virtually all allocated to residential ratepayers despite the fact that the number of residential customers who take service from an alternative provider must number in at most the hundreds if not the tens.) While I believe allocating amounts in Account 903 issue is important, the chances of anybody paying much attention to it in this case are small. As with the other issues reviewed in this section of my testimony, I understand that this issue, which requires the review of tedious, detailed data to make the correct allocation, will likely receive scant attention given the prolific number of matters that must be decided in a rate case. As a result, the City is left to hope that ComEd will choose to make a similar refined analysis to work through USOA Account 903 residential and non-residential costs in its rebuttal testimony or in future cases.

Addressing the relationship between customer size and the cost of service drops. Service drops are not a trivial part of the customer charge for ratepayers who live in single family homes. For larger houses like mansions in Lake Forest, the cost of a long and wide underground service drop is obviously much more than the cost a short overhead line for a bungalow in the South Side. Yet, both houses are imposed the same charge in ComEd's rate scheme. While the relationship is actually acknowledged in ComEd's testimony in this case[11], this cost inequity has been ignored by the Company for decades. The City knows that ComEd can pull things out of its mapping system, that it calls the "ComEd Graphical Information System" or "CEGIS." It seems that this ratepayer-funded system can be used to identify individual equipment, its age, and its costs. ComEd could easily use CEGIS or other techniques to make a study of the relationship between the length, diameter, and the cost of wire and the size of a residential residence in terms of usage. Although the data shows that the cost of underground service drops is dramatically higher than overhead service drops and that usage outside Chicago is

[11] ComEd witness Ross Hemphill wrote: "For example, when ComEd installs a new feeder, a new distribution substation, or even a customer's service drop, ComEd determines the capacity of that system component based on the projected peak load requirement over the long term." ComEd Ex. 14.0 (Rev.) at 10, LL 209-212.

significantly higher on average than usage in Chicago, despite many efforts, the City has not been able to pry meaningful information out of ComEd concerning service drop costs and usage. In any event, while I am not focusing on this issue in this case, this is something that requires serious consideration.[12]

Q. Why are you not providing additional testimony on these subjects?

A. As I stated above, the Commission has many other issues to address in this case, and even If we presented a rigorous, detailed analysis of these subjects, it is doubtful that the Commission would have the time or the resources to seriously study the issues.

Q. Does this conclude your direct testimony?

A. Yes it does.

[12] Given ComEd's efforts to cram almost all distribution costs into the customer charge, maybe this issue does not matter anyway.